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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KLAUS MAASS and JURGEN MOSCR

Appeal 2009-0460
Application 10/023,444
Technology Center 3600

Decided:¹ April 30, 2009

Before LINDA E. HORNER, JOHN C. KERINS, and
STEFAN STAICOVICI, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

Klaus Mass et al. (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 20-33 and 38-40. Claims 1-19 are cancelled, and claims 34-37 are withdrawn. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM-IN-PART.

THE INVENTION

The Appellants' claimed invention is a window regulator assembly for a car. Spec. 1, para. 2. Claims 20 and 38, reproduced below, are representative of the subject matter on appeal.

20. A cable arrangement assembly for a vehicle comprising:

a carrier for a cable, said carrier having a first side and a second side opposed thereto, and said carrier having a first elongate member and a second elongate member, said first elongate member transverse to said second elongate member;

a first cable guide and a second cable guide mounted to said first elongate member;

a third cable guide and a fourth cable guide mounted to said second elongate member;

a first guide rail spaced generally parallel to a second guide rail, said first guide rail and said second guide rail mountable to said carrier on the first side to guide a window; and

wherein said carrier has a plate mounting a drive for the window, the drive being mounted to the second side of the carrier, said plate having a seal.

38. A vehicle door module comprising:

an inner door panel having a window frame, said inner door panel having an interior side for facing an interior of a vehicle and an exterior side for facing an exterior of the vehicle;

a carrier for a cable for supporting a window in the window frame, said carrier having a first elongate member and a second elongate member, said first elongate member transverse to said second elongate member;

a first cable guide and a second cable guide both mounted to said first elongate member;

a third cable guide and a fourth cable guide both mounted to said second elongate member;

a first guide rail spaced generally parallel to a second guide rail, said first guide rail and said second guide rail mountable to said carrier and for guiding the window; and

wherein said carrier has a plate for mounting a drive for the window, said plate having a seal spaced between said carrier and said exterior side of said inner door panel.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Schust	US 4,503,732	Mar. 12, 1985
Herringshaw	US 4,800,638	Jan. 31, 1989

Szerdahelyi	US 5,033,236	Jul. 23, 1991
Ritchie	US 5,857,732	Jan. 12, 1999
Borchuk	US 6,430,873 B1	Aug. 13, 2002
Marscholl	US 6,820,370 B2	Nov. 23, 2004
Kirejczyk	WO 00/53446	Sep. 14, 2000

Appellants seek our review of the following rejections:

1. The Examiner rejected claims 20-28, 32, 33, and 40 under 35 U.S.C. § 103(a) as unpatentable over Marscholl and Schust.
2. The Examiner rejected claims 29 and 30 under 35 U.S.C. § 103(a) as unpatentable over Marscholl, Schust, and Kirejczyk.
3. The Examiner rejected claim 31 under 35 U.S.C. § 103(a) as unpatentable over Marscholl, Schust, and Szerdahelyi.
4. The Examiner rejected claims 38 and 39 under 35 U.S.C. § 103(a) as unpatentable over Herringshaw, Borchuk, and Ritchie.²

ISSUES

The Examiner found that Marscholl discloses all of the elements of claims 20-28, 32, 33 and 40, except a seal, and concluded it would have been obvious to use a seal, as taught by Schust, in the device of Marscholl between the drive motor and the mounting plate in order to “prevent water from penetrating into the drive” and “reduce vibrations from being transmitted from the motor to the mounting plate.” Ans. 4, 7-8.

² Claims 39 and 40 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite; however, Appellants amended the claims in response to the rejection (App. Br. 4), and the Examiner withdrew the rejection (Ans. 2).

Appellants contend there is no “motivation or suggestion to modify Marscholl in the manner suggested by the Examiner.” App. Br. 4-5.

Appellants also contend the combined references do not teach or suggest a carrier with a plate mounting a drive mounted on the second side of the carrier, and the plate having a seal as recited in claim 20. App. Br. 5.

The first issue before us is:

Have Appellants demonstrated the Examiner erred in determining that one having ordinary skill in the art would have been led to combine the references in the manner claimed, including a carrier having a seal as recited in claim 20?

Additionally, Appellants present separate arguments regarding the patentability of the seal as recited in claims 23 and 33. App. Br. 6. These arguments require us to consider the scope of each claim and to determine whether the Examiner erred in concluding that the subject matter of each claim would have been obvious in view of Marscholl and Schust to one of ordinary skill in the art.

The Examiner found the subject matter of claims 29 and 30 would have been obvious in view of Marscholl, Schust, and Kirejczyk. Ans. 4, 10.

Appellants contend there is no “motivation or suggestion to modify Marscholl with Kirejczyk,” and that the combined references do not teach each element of the claims. App. Br. 7-8.

The second issue before us is:

Have Appellants demonstrated the Examiner erred in finding that one having ordinary skill in the art would have combined the teachings of Marscholl, Schust, and Kirejczyk in the manner claimed, or that the combined references teach each element of the claims?

The Examiner found the subject matter of claim 31 would have been obvious in view of Marscholl, Schust, and Szerdahelyi. Ans. 5, 11.

Appellants contend that “[e]lement 4 of Szerdahelyi is not an elongate cross member of a carrier as defined in the claims,” and that “there is no motivation or suggestion to modify Marscholl with the teachings of Szerdahelyi.” App. Br. 8-9.

The third issue before us is:

Have Appellants demonstrated the Examiner erred in finding that Szerdahelyi discloses the claimed elongate cross member or erred in concluding that one having ordinary skill in the art would have been led to combine the teachings of Szerdahelyi with Marscholl in the manner claimed?

The Examiner found that the subject matter of claim 38 would have been obvious in view of Herringshaw, Borchuk, and Ritchie. Ans. 5-6.

Appellants contend: 1) a person of ordinary skill in the art would not be motivated to use the cable window regulator of Borchuk in the door module of Herringshaw, 2) the proposed modification is not structurally feasible, 3) Ritchie does not disclose that bead of adhesive 70 acts as a seal, and 4) “there would be no reason for one of ordinary skill in the art to look to Ritchie.” App. Br. 9-11.

The fourth issue before us is:

Have Appellants demonstrated the Examiner erred in determining that one having ordinary skill in the art would have been led to combine the teachings of Herringshaw, Borchuk, and Ritchie to result in the subject matter of claim 38?

The Examiner found that the subject matter of claim 39 would have been obvious in view of Herringshaw, Borchuk, and Ritchie. Ans. 5-6.

Appellants contend Ritchie does not teach a watertight seal. App. Br. 12.

The fifth issue before us is:

Have Appellants demonstrated the Examiner erred in the rejection of claim 39 because Ritchie does not teach a watertight seal?

FINDINGS OF FACT

We find that the following enumerated facts are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Appellants do not provide a lexicographical definition for “receiving” as used in claim 23. Spec. *passim*.³
2. The ordinary and customary meaning of the term “receive” is “to take in: act as a receptacle or container for.” *Webster’s Third New International Dictionary, Unabridged* (1961).
3. Appellants depict assembly of the door in which the components of the window regulator assembly 34 (including the motor 16) are pre-assembled and then added to door inner panel 31. Fig 4; *see also* Spec. 8, para. 64 (“Figures 4 to 6 show the manner in which the door is assembled”).

³ This refers to the Specification filed on 25 Oct. 2004.

4. Marscholl discloses a motor-vehicle window lift that may be mounted on the wet or dry side of the door, and includes a mounting structure (mounting structure 2), and a drive means (cable drive means 4). Marscholl, col. 1, l. 7-8; col. 4, ll. 5-7, 47-48, 53-54; Fig. 1.
5. Marscholl discloses that cable drive means 4 is mounted on the lower portion of mounting structure 2 between guides 6 and 7. Marscholl, col. 4, ll. 47-50, 53-54; Fig. 1.
6. Marscholl discloses an objective of the invention is to create a window lift with “good pane-guiding properties while being compact.” Marscholl, col. 2, ll. 13-15.
7. Marscholl discloses it is feasible to mount additional components on the mounting structure. Marscholl, col. 2, ll. 29-33.
8. Schust discloses a window lift device for motor vehicles with a driving member (driving base 12) that may be driven by either a crank (crank handle 14), or a motor (motor drive 16). Schust, col. 1, ll. 6-10; col. 4, ll. 4-7; Fig. 1.
9. Driving base 12 contains cable drum 18, enclosed by two-part housing 20, comprised of a front part 22 and a rear part 24 which includes a rear wall 60. Schust, col. 4, ll. 23-25, 59-60; Fig. 1.
10. Motor drive 16 is enclosed by drive hood 88. Schust, col. 5, ll. 46-49; Figs. 1, 2.
11. Driving base 12 connects to motor drive 16 so that rear wall 60 abuts drive hood 88. Schust, col. 5, ll. 20-23; Fig. 1.

12. To prevent water from penetrating between driving base 12 and motor drive 16, O-ring like annular sealing section 136 is provided between rear wall 60 and drive hood 88. Schust, col. 6, ll. 23-29; Fig. 1; Fact 11.
13. Kirejczyk discloses a door module with a carrier that provides a common element for door modules that can be applied to several different vehicle door types. Kirejczyk 1:4; 2:1-3.
14. Kirejczyk discloses that carrier 54 has an upper body panel 62 with holes for mounting door release handle 56 and latch bracket 70. Kirejczyk 5:7-11; Fig. 5.
15. A variety of custom brackets may be used as latch bracket 70 in order to fit different vehicles and door types. Kirejczyk 5:18-19.
16. A person of ordinary skill in the art, upon reading Kirejczyk, would understand that Kirejczyk teaches that the appropriate latch for a given vehicle door type may be attached to a carrier for a given application. Facts 13-15; Kirejczyk, *passim*.
17. Szerdahelyi discloses a motor vehicle door that incorporates a support frame which increases the rigidity of a motor vehicle door in the lengthwise and transverse directions. Szerdahelyi, col. 1, l. 4; col. 2, ll. 21-28.
18. Szerdahelyi discloses a support frame (2) that includes a tension and compression strip (4). Szerdahelyi, col. 5, ll.41-46; Figs. 1, 5, 6.
19. Tension and compression strip 4 is u-shaped. Szerdahelyi, Figs. 1, 5 (best visible at connecting end 45 of tension and

compression strip 4).

20. Tension and compression strip 4 absorbs impact forces, protects vehicle occupants, and reinforces the passenger compartment. Szerdahelyi, col. 7, ll. 21-24, 46-58; col. 7, l. 64 to col. 8, l. 12.
21. A person of ordinary skill in the art, upon reading Szerdahelyi's disclosure, would recognize that a u-shaped cross section, such as used for tension and compression member 4, adds strength to a structural member (Facts 17-20).
22. Borchuk discloses a window regulator assembly for raising and lowering large glass panels. Borchuk, col. 1, ll. 7-8.
23. Borchuk's regulator is designed to repeatedly lift and lower relatively large window glass without the added weight of "heavy duty" regulators. Borchuk, col. 1, ll. 24-33, 37-40.
24. Borchuk discloses a window regulator system 10 that includes a first drum and cable regulator sub-assembly 20, and a second drum and cable regulator sub-assembly 22, a drive actuator 24, and a drive unit 26. Borchuk, col. 2, ll. 22-25; Fig. 1.
25. Borchuk discloses the dual drum and cable assemblies (sub-assemblies 20, 22) for the window regulator system provide increased durability over a single drum and cable system. Borchuk, col. 4, ll. 1-4.
26. Ritchie discloses a plastic modular door for a land vehicle. Ritchie, col. 1, ll. 7-8
27. Ritchie teaches that bead of adhesive 70 bonds outer skin member 12 to intermediate shell 16, providing the resulting sub-assembly with "a single molded sealed surface which, in

turn, improves the durability for the door 10.” Ritchie, col. 4, ll. 34-36, 61-64.

28. A person of ordinary skill in the art would understand that Ritchie’s seal prevents the penetration of water (Fact 27).
29. Herringshaw discloses a door for a land vehicle that includes an inner panel (inner panel 18) that forms a peripheral frame, comprised of L-shaped lower leg portions 20 and 22. Herringshaw, col. 1, ll. 6-7; col. 4, ll. 36-40; Figs. 1, 3.
30. Intrusion beam 32 is installed within inner panel 18 so that intrusion beam 32 has web 34 adjacent the peripheral face portion of leg portions 20, 22 (adjacent inner trim panel 16). Herringshaw, col. 5, ll. 25-32; Figs. 1, 3.
31. The peripheral face portions of legs 20 and 22 form the front and rear edges of lower, generally rectangular opening 35. Herringshaw, col. 5, ll. 25-32; Fig. 3 (Opening 35 is visible, but not numbered in Figure 3 (see the opening with reference numerals 260 and 246 inside)).
32. Because the front and rear edges (peripheral face portions of legs 20, 22) of generally rectangular opening 35 are adjacent to the web 34 of intrusion beam 32, portions of web 34 could be joined by adhesive to the adjacent front and rear edges of the peripheral face portions of legs 20, 22 (Facts 30-31).
33. The web 34 of intrusion beam 32 tapers from a larger dimension adjacent the front flange 36 to a smaller dimension adjacent the rear flange 38 so that the entire top and bottom edges of generally trapezoidal-shaped intrusion beam 32 are not

adjacent the material of the inner panel 18 that forms the edges of generally rectangular opening 35. Herringshaw, col. 5, ll. 1-8, 25-32; Figs. 1, 3.

34. Because at least a portion of the top and bottom edges of intrusion beam 32 are not adjacent the material of inner panel 18 that forms the edges of generally rectangular opening 35, it is not possible to place adhesive between intrusion beam 32 and the material of inner panel 18 that forms the edges of generally rectangular opening 35 so that a watertight seal is formed. Facts 32, 33.

PRINCIPLES OF LAW

Appellants' Burden

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Claim construction

We determine the scope of the claims in patent applications not solely based on the claim language, but upon giving claims "their broadest reasonable interpretation consistent with the specification" and "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir.

2004). We must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (“Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.”) The challenge is to interpret claims in view of the specification without unnecessarily importing limitations from the specification into the claims. *See E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003).

Obviousness

Absent unexpected results, when a patent “simply arranges old elements with each performing the same function it had been known to perform” and yields no more than one would expect from such an arrangement, the combination is obvious. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (citing to *Sakraida* 425 U.S. 273, 282 (1976)).

Teaching Away

Whether a reference teaches away from a claimed invention is a question of fact. *In re Harris*, 409 F.3d 1339, 1341 (Fed. Cir. 2005). “A reference may be said to teach away when a person of ordinary skill, upon reading the reference would be led in a direction divergent from the path that was taken by the applicant.” *In re Haruna*, 249 F.3d 1327, 1335 (Fed. Cir. 2001). “[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely

to be nonobvious.” *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 51-52 (1966)).

ANALYSIS

1. Rejection of claims 20-28, 32, 33, and 40 and under 35 U.S.C. § 103(a) as unpatentable over Marscholl and Schust

Appellants argue claims 20-22, 24-28 and 32 as a group. App. Br. 4. We select claim 20 as the representative claim, and claims 21, 22, 24-28, and 32 stand or fall with claim 20. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

Claim 20

Claim 20 includes the limitation that the carrier (chassis or frame of the window regulator) have a drive for the window mounted on a plate with a seal.⁴

Appellants make several arguments why there is no reason to combine the references. First, Appellants argue that Marscholl uses a sealed motor unit and has no need for a seal. App. Br. 4-5. While Appellants are correct that Marscholl discloses the window lift unit may be used on the wet or the dry side of the door (Fact 4), that disclosure does not lead to the conclusion that there is no reason to add a seal as taught by Schust. Appellants have ignored the second reason to combine found by the Examiner, namely, that a seal as taught by Schust would reduce the transmission of vibrations between the drive and the plate. Because Appellants’ argument does not even address this reason to combine, Appellants have failed to demonstrate error in the Examiner’s finding.

⁴ See reference to the carrier as a frame or chassis at Spec. 4, para 22.

Next, Appellants contend that there is “no teaching in Schust of any particular benefit to using the Schust drive motor in the place of the Marscholl motor.” App. Br. 5. This argument does not address the combination as articulated by the Examiner, because the rejection does not use the drive of Schust. Rather, the Examiner found a seal as taught by Schust could be “disposed between the drive motor and the drive mounting plate of Marscholl.” Ans. 8.

Additionally, Appellants contend Schust teaches a seal “between the drive and a cable drum, not a seal on the plate mounting the drive” as required by claim 20. App. Br. 5. While Appellants are correct that Schust discloses a seal between a drive (motor drive 16) and a cable drum (driving base 12) (Facts 8-12), Appellants’ argument focuses on Schust’s particular incorporation of the seal in Schust’s device instead of considering what Schust would have taught to one having ordinary skill in the art. We find that a person of ordinary skill in the art, having before him Schust’s teaching of a seal between a drum and a drive and knowing the accompanying benefits, would recognize the seal would provide the same benefits to the drum if mounted between the drum and a mounting plate, *viz.*, to reduce the transmission of vibrations.

Beyond arguing there was no reason to combine the references, Appellants also argue that the combined teachings of the references do not teach all aspects of the claim. More specifically, Appellants contend the plate 60 of Schust is not part of the carrier, and further that seal 136 is part of motor drive 16, not plate 60. App. Br. 5. Again, Appellants fail to properly address the Examiner’s articulation of the rejection because the

Examiner found that the seal as taught by Schust (seal 136) could be placed between the drive motor and drive mounting plate of Marscholl. Ans. 8

Appellants have failed to demonstrate the Examiner erred in the rejection of claim 20. Claims 21, 22, 24-28, and 32 fall with claim 20.

Claim 23

Claim 23 depends from claim 20, and adds the limitation that the “seal is sized larger than an aperture of an inner door panel for receiving said drive.”

Appellants argue that the “seal 136 in Schust is clearly smaller in diameter than the outer housing wall for the motor drive 16,” and therefore “cannot be sized larger than an aperture in a door panel through which the motor drive is inserted.” App. Br. 6. The Examiner found that the aperture of the inner door panel is not a claimed part of the invention, but rather is merely a size reference for the seal. Ans. 8-9. Further, the Examiner found that claim 23 does not require the aperture to be large enough for the motor drive to fit through as Appellants assert, but rather the claim only requires the inner door have an aperture smaller than the seal. We agree with the Examiner.

It is Appellant’s burden to precisely define the invention. *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997). Appellants do not provide a lexicographical definition for “receiving” as used in claim 23 (Fact 1). While we must read claim 23 in light of the Specification, the Specification does not require aperture 46 to be sized so that motor 16 can pass through it for assembly; rather, the cable regulator assembly, including motor 16, is preassembled and then added to inner door panel 31 from the exterior side so that there is no requirement for motor 16 to pass through aperture 46 (Facts

2-4). Further, the ordinary and customary definition of receive is to “to take in: act as a receptacle or container for” (Fact 2). Accordingly, giving claim 23 its broadest reasonable interpretation consistent with the Specification, we are not persuaded that the claim term “aperture ... for receiving” must be construed so narrowly as to require the aperture to be large enough to permit the motor to pass therethrough.

Appellants have failed to demonstrate the Examiner erred in the decision to reject claim 23.

Claim 33

Claim 33 depends from claim 20 and adds the further limitation that the seal, like the motor, is mounted on the second face of the carrier.

The Examiner found that a person of ordinary skill in the art would place the seal as taught by Schust between the cable drive means 4 and the drive mounting plate of Marscholl, and that this is the second side of the carrier. Ans. 7, 9.

Appellants contend that neither reference teaches the claimed location for the seal, and that seal 136 of Schust is within motor drive 16 and is not associated with any type of carrier plate. App. Br. 6.

Appellants have again failed to address the rejection as articulated by the Examiner. By attacking the Schust reference individually, and not addressing the rejection as articulated by the Examiner, Appellants have failed to demonstrate error in the Examiner’s decision to reject claim 33.

Claim 40

Claim 40 depends from claim 21 that depends in turn from claim 20, and requires that that seal substantially prevents liquid from passing from the first side to the second side of the carrier about the plate.

Appellants contend the combined references do not disclose this feature because “Schust does not disclose, suggest, or teach any type of relationship between a seal and a plate on a carrier. The seal 136 that the examiner refers to is solely incorporated into the drive motor 16 and is not associated with a carrier and plate as defined in the claim.” App. Br. 6.

Again, Appellants’ individual attack on the Schust reference fails to address the rejection as articulated by the Examiner, and does not demonstrate error in the rejection. The Examiner found that a person of ordinary skill in the art would place the seal of Schust (seal 136) “between the drive motor and the drive mounting plate of Marscholl.” Ans. 8.

2. Rejection of claims 29 and 30 under 35 U.S.C. § 103(a) as unpatentable over Marscholl, Schust, and Kirejczyk

Claim 29

Claim 29 depends from claim 20 and adds the limitation of “a latch mounting plate for mounting a vehicle door latch on said carrier.”

The Examiner used the base reference combination of Marscholl and Schust used for claim 20 above, and found it would have been obvious to add the teaching of Kirejczyk of a door latch mounted on the carrier “to increase the ease of assembling a vehicle door.” Ans. 5, 10.

Appellants first repeat the arguments used against the combination of Marscholl and Schust of claim 20, *supra*. Those same arguments remain unconvincing here.

Next, Appellants contend that latch mounting plate 70 of Kirejczyk is not part of carrier plate 14 because it is a custom plate that can fit different vehicle types and doors. App. Br. 7. Appellants are correct that Kirejczyk

discloses using different (custom) latch mounting plates to fit a variety of vehicle types and doors (Fact 15). However, use of a variety of brackets does not alter the fact that latch bracket 70 is attached to the carrier (Facts 13-15).

Appellants also contend that because Kirejczyk provides for custom latch brackets, this teaches away from adding the latch bracket of Kirejczyk to the carrier of Marscholl. App. Br. 7. We disagree. A person of ordinary skill in the art, upon reading Kirejczyk, would not be led in a direction different from that chosen by Appellants simply because latch bracket 70 may be customized for certain applications; rather, a person of ordinary skill in the art would understand that Kirejczyk teaches the appropriate latch for a given vehicle door type may be attached to a carrier for a given application (Fact 16).

Appellants further contend that “an object of Marscholl is to have a compact window lift assembly,” and that this “objective would be defeated by adding more components, such as a latch mounting plate, to the carrier.” App. Br. 7. As the Examiner correctly points out, Appellants’ contention is not correct because Marscholl discloses the addition of other components. Ans. 10; (Fact 7).

Appellants have failed to demonstrate error in the Examiner’s decision to reject claim 29.

Claim 30

Claim 30 depends from claim 20 and adds the limitation of “a door handle mounting plate for mounting a vehicle door handle on said carrier.”

Similar to the arguments presented for claim 29, Appellants contend:
1) there is no disclosure in Kirejczyk that the carrier includes a door handle

mounting plate, 2) Kirejczyk teaches away from a providing a carrier with a door handle mounting plate because Kirejczyk provides for custom bracket designs, and 3) the combination found by the Examiner would destroy Marscholl's objective to create a compact window lift. App. Br. 8.

We are not persuaded. First, contrary to Appellants' contention, Kirejczyk does disclose a carrier with a door handle mounting plate (door handle 56 attaches directly to carrier 54 so that the carrier is then the door handle mounting plate) (Fact 14). Second, Kirejczyk does not teach away from providing a carrier with a door handle mounting plate because that is the very thing Kirejczyk teaches (Fact 14). Third, the combination found by the Examiner does not destroy Marscholl's objective of a compact window lift because the carrier already has a door handle mounting plate and nothing need be added (Fact 14).

3. Rejection of claim 31 under 35 U.S.C. § 103(a) as unpatentable over Marscholl, Schust, and Szerdahelyi

Claim 31 depends from claim 20 and adds the limitation that "at least one of said first elongate member and said second elongate member has a u-shaped cross-section."

The Examiner used the base reference combination of Marscholl and Schust used for claim 20 above, and added the teaching of Szerdahelyi that the cross members have a u-shaped cross section. The Examiner concluded it would have been obvious to modify the elongate members of Marscholl to have u-shaped cross sections as taught by Szerdahelyi "to increase the strength of the elongate members." Ans. 5.

Appellants first repeat the arguments used against the combination of Marscholl and Schust for claim 20. For the reasons recited in the analysis of claim 20, *supra*, those same arguments remain unconvincing here.

Appellants contend “[e]lement 4 of Szerdahelyi is not an elongate cross member of a carrier as defined in the claims.” App. Br. 8-9. Appellants’ contention that Szerdahelyi is not an elongate cross member of a carrier fails to address the rejection made by the Examiner. The Examiner did not find that Szerdahelyi discloses an elongate cross member of a carrier with a u-shaped cross section; rather, the Examiner relied on Szerdahelyi to teach that a structural member with a u-shape adds strength, and used this teaching to modify the elongate member of Marscholl to have a u-shaped cross section. Ans. 5.

Appellants contend there is no reason to combine the references because Marscholl does not disclose the elongate members have inadequate strength, and Szerdahelyi does not disclose that a u-shaped cross section increases strength. App. Br. 9. The proper question is not if Marscholl disclosed a need for increased strength, or if Szerdahelyi discloses that a u-shaped cross section increases strength. The proper question is whether the subject matter of claim 31 would have been obvious in view of the references.

Szerdahelyi’s device increases the strength of the door in the transverse and lengthwise directions, in part due to tension and compression member 4 (Facts 17-21). Further, the Examiner found, and we agree, that a person of ordinary skill in the art, upon reading Szerdahelyi’s disclosure, would recognize that a u-shaped cross section adds strength (Fact 21). The modification to use a u-shaped cross section, as taught by Szerdahelyi, as the

elongate member of Marscholl to increase strength is the predictable use of prior art elements according to their established functions. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. at 416.

4. Rejection of claims 38 and 39 under 35 U.S.C. § 103(a) as unpatentable over Herringshaw, Borchuk, and Ritchie

Claim 38

Independent claim 38 is for a vehicle door module that essentially comprises the cable arrangement assembly of claim 20 with the addition of an inner door panel.

Appellants argue that a person of ordinary skill in the art would not have been motivated to use the cable window regulator of Borchuk in the door module of Herringshaw because Borchuk discloses a cable window regulator “for large panels of glass, such as those for rear windows,” while Herringshaw is “used to control movement of a relatively small glass panel for a side window.” App. Br. 10.

This argument is not persuasive. Borchuk discloses a window regulator assembly with two drum and cable sets for increased durability over a single drum and cable system, that can lift and lower relatively large window glass without the added weight of a “heavy duty” regulator (Facts 22-25). In other words, Borchuk discloses a light, yet durable regulator. As the Examiner found, a person of ordinary skill in the art, would have been motivated to add a dual drum and cable regulator system as taught by Borchuk to the device of Herringshaw to improve durability.

Appellants also contend that the proposed modification is not structurally feasible because carrier 32 of Herringshaw does not provide for

sufficient vertical travel for the window. App. Br. 10. This argument fails to address the rejection. The Examiner modified Herringshaw's vehicle door module by adding Borchuk's cable regulator sub-assemblies (20, 22) on Herringshaw's carrier (32). Ans. 5, 12-13. The cable regulator sub-assemblies 20, 22 then define the vertical travel of the window, not carrier 32 as asserted by Appellants. By failing to address the rejection as articulated by the Examiner, Appellants have failed to demonstrate error by the Examiner.

Appellants contend that Ritchie discloses a bead of adhesive 70, and that "[t]here is no disclosure that this bead of adhesive acts as a seal." App. Br. 11. Appellant is factually incorrect, Ritchie discloses that adhesive 70 "seals" the outer skin of the door to the intermediate shell (Facts 26-27).

Appellants further contend there is no motivation or suggestion to modify Herringshaw with Ritchie because "the purpose of this adhesive 70 is to secure an outer skin member 12 of a door to an intermediate shell 16," and adhesive 70 is provided "at an entirely different location on a door than appellant's seal as defined in claim 38." App. Br. 9-11. Appellants are excessively narrowing the teachings of Ritchie. Ritchie teaches an adhesive that bonds parts of a vehicle door, providing a seal and strength (Fact 27). A person of ordinary skill in the art, having the disclosure of Ritchie before him, would understand that adhesive 70 could be used to bond and seal parts of a door (e.g. carrier 32 and inner panel 18 of Herringshaw) to increase durability.

Next, Appellants contend that if adhesive 70 of Ritchie were applied between carrier 32 and inner panel 18, no bond or seal would be formed because there is no "corresponding part of inner panel 18 in the vicinity of

the adhesive to adhere to.” App. Br. 11. Appellant is factually incorrect. The peripheral leg portions of front and rear legs 20, 22 are adjacent to portions of web 34 of intrusion beam 32 and could be joined with an adhesive, such as bead of adhesive 70 taught by Ritchie (Fact 32).

Appellants have failed to demonstrate error in the rejection of claim 38.

Claim 39

Claim 39 depends from claim 38. Claim 38 requires that the plate have a seal spaced between the carrier and the exterior side of the inner door panel, and claim 39 further defines the limitation related to the seal to require that “said plate and said inner door panel provide a substantially watertight seal between said exterior side and said interior side of said inner door panel.”

Appellants contend that “there is no corresponding part of inner panel 18 in the vicinity for the adhesive to adhere to.” App. Br. 11.⁵ In claim 38 where the seal was only required to be between the carrier and the exterior side of the inner door panel, we found this argument unconvincing because Herringshaw discloses the peripheral leg portions of front and rear legs 20, 22 are adjacent to portions of web 34 of intrusion beam 32 and could be joined with an adhesive, such as bead of adhesive 70 taught by Ritchie (Fact 32). However, claim 39 requires more than a seal between the exterior side of the inner panel and the carrier. Claim 39 requires the seal to be watertight. Because at least a portion of the top and bottom edges of intrusion beam 32 are not adjacent the material of inner panel 18 that forms

⁵ In the arguments for patentability for claim 39, Appellants refer back to the arguments of claim 38. App. Br. 12.

the edges of generally rectangular opening 35, it is not possible to place adhesive between intrusion beam 32 and the material of inner panel 18 that forms the edges of generally rectangular opening 35 so that a watertight seal is formed (Fact 34). Appellants have demonstrated the Examiner erred in the rejection of claim 39.

CONCLUSIONS

Appellants have failed to demonstrate the Examiner erred in determining that one having ordinary skill in the art would have been led to combine the references in the manner claimed, including a carrier as recited in claim 20. Additionally, Appellants' separate arguments regarding the patentability of the seal as recited in claims 23, 33, and 40 also failed to demonstrate error.

Appellants have failed to demonstrate the Examiner erred in finding that one having ordinary skill in the art would have combined the teachings Marscholl, Schust, and Kirejczyk in the manner claimed, or that the combined references teach each element of the claims rejected in view of this combination.

Appellants have failed to demonstrate the Examiner erred in finding that Szerdahelyi discloses the claimed elongate cross member or erred in determining that one having ordinary skill in the art would have combined the teachings of Szerdahelyi with Marscholl in the manner claimed.

Appellants have failed to demonstrate the Examiner erred in determining that one having ordinary skill in the art would have been led to combine the teachings of Herringshaw, Borchuk, and Ritchie to result in the subject matter of claim 38.

Appellants have demonstrated the Examiner erred in the decision to reject claim 39 because the combined references do not teach a watertight seal.

DECISION

We affirm the Examiner's decision to reject claims 20-33, 38, and 40. We reverse the Examiner's decision to reject claim 39.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

vsh

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